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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,566	02/24/2004	Yoshiki Kano	16869B-098100US	1800

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EXAMINER

HWANG, JOON H

ART UNIT

PAPER NUMBER

2162

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,566

Applicant(s)

KANO ET AL.

Examiner

Joon H. Hwang

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are ~~withdrawn~~ Canceled from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/9/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The applicants canceled claims 1-19 and added new claims 20-26 in the preliminary amendment received on 4/27/05.

The pending claims are 20-26.

Specification

2. The disclosure is objected to because of the following informalities:

- "World Wide Name (WWW)" in lines 21-22 on page 6 should be "World Wide Name (WWN)";
- "Hitachi High CopyTM" in line 5 on page 8 should be "Hitachi HiCopyTM."; and
- "In Hitachi True Copy" in line 5 on page 8 should be "In Hitachi True CopyTM".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 20 and 22-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohno et al. (U.S. Publication No. 2003/0229764 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claim 20, Ohno teaches a storage system coupled to a host computer via a network (fig. 1). Ohno teaches first and second storage volumes being configured to store data accessed from the host computer according to a block access command (i.e., a SCSI command) (section 49 on page 4, section 63 on page 5, and section 71 on page 6). Ohno teaches first setting information associated with the first storage volume (i.e., a first attribute information for a first storage subsystem, section 10 on page 1, section 24 on page 2, and section 58 on pages 4-5). Ohno teaches a storage controller being configured to copy data in the first storage volume to the second storage volume according to a copy request from the host computer (sections 44 and 54 on page 4), the copy request including information specifying the first storage volume (section 41 on page 3 and sections 63 and 67-68 on page 5). Ohno teaches the second storage volume is managed based on the first setting information associated with the first storage volume after the data stored in the first storage volume are copied to the second storage volume (sections 13 and 20-23 on page 2).

With respect to claim 22, Ohno teaches the first setting information is copied as a second setting information associated with the second storage so that the second storage is managed based on the first setting information when the data in the first storage volume are copied to the second storage volume (section 13 and 20-23 on page 2).

With respect to claim 23, Ohno teaches the first setting information includes attributes and permission information for the first storage volume managed by the storage system (i.e., attribute information includes access setting list and other attributes, section 10 on page 1 and section 58 on pages 4-5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al. (U.S. Publication No. 2003/0229764 A1) in view of McGovern et al. (U.S. Publication No. 2005/0097260 A1).

With respect to claim 21, Ohno discloses the block access command includes SCSI (section 63 on page 5 and section 71 on page 6). Ohno does not explicitly disclose iSCSI as the block access command. However, McGovern discloses SCSI and iSCSI as the block access command (sections 53-54 on page 5 and section 109 on

page 10), wherein iSCSI is well known transport protocol in the computer network art for data transmission over the Internet. Therefore, based on Ohno in view of McGovern, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize iSCSI of McGovern to the system of Ohno in order to transmit data from a source volume to a target volume over the Internet.

With respect to claim 24, Ohno discloses the claimed subject matter as discussed above except a retention period. However, McGovern discloses a retention period for a storage volume, wherein any types of data (i.e., content data, attribute data, and etc.) in the storage volume cannot be changed until the retention period expires in order to prevent improper changes to the data in the storage volume (abstract, section 66 on page 7, sections 81-82 on page 8, section 121 on page 11, section 135 on page 13, section 142 on pages 13-14, and section 144 on page 14). Therefore, based on Ohno in view of McGovern, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the retention period of McGovern to the system of Ohno in order to prevent improper changes to data in a storage volume.

With respect to claim 25, Ohno discloses the claimed subject matter as discussed above except retention information. However, McGovern discloses retention information, which can be associated with a storage volume, thereby preventing data modifications to the storage volume (abstract, section 66 on page 7, sections 81-82 on page 8, section 121 on page 11, section 135 on page 13, section 142 on pages 13-14, and section 144 on page 14). Therefore, based on Ohno in view of McGovern, it would have been obvious to one having ordinary skill in the art at the time the invention was

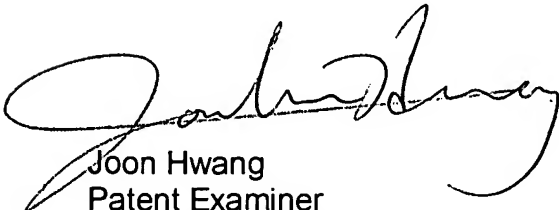
made to utilize the retention information of McGovern to the system of Ohno in order to control data modifications to the storage volume.

With respect to claim 26, Ohno discloses copying data from the first storage volume to the second storage volume (sections 44 and 54 on page 4) as discussed above in claim 20. Ohno does not explicitly disclose a retention period. However, McGovern discloses a retention period/information for a storage volume in order to prevent data modifications to attributes for the storage volume, wherein the attributes for the storage volume can be changed when the retention period expires (abstract, section 66 on page 7, sections 81-82 on page 8, section 121 on page 11, section 135 on page 13, section 142 on pages 13-14, and section 144 on page 14). Thus, when the access attribute for the storage volume is set as "disabled" and the retention period for the storage volume is not expired, copying data from the storage volume to another target storage volume cannot be executed based on Ohno in view of McGovern. Once the retention period is expired, the access attribute can be changed to "enabled" and the copying operation can be performed. Furthermore, since "attribute information" including the retention period information for the storage volume is synchronized with the target storage volume, data modifications to the target storage volume cannot be performed until the retention period expires based on Ohno in view of McGovern. Therefore, based on Ohno in view of McGovern, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the retention period of McGovern to the system of Ohno in order to prevent any changes to data in the storage volume.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E. BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joon Hwang
Patent Examiner
Technology Center 2100

8/5/05